

12

PAGE: 1

SEQUENCE CORRECTION REPORT  
PATENT APPLICATION US/07/978,891B

DATE: 05/26/93  
TIME: 14:44:16  
S4539

LINE ORIGINAL TEXT

CORRECTED TEXT

4 (1)GENERAL INFORMATION  
12 (iv)CORRESPONDING ADDRESS:  
349 (3)INFORMATION FOR SEQ ID NO: 2:  
676 (4)INFORMATION FOR SEQ ID NO: 3:  
695 (5)INFORMATION FOR SEQ ID NO: 4:  
714 (6)INFORMATION FOR SEQ ID NO: 5:  
749 (7)INFORMATION FOR SEQ ID NO: 6:  
768 (8)INFORMATION FOR SEQ ID NO: 7:  
787 (9)INFORMATION FOR SEQ ID NO: 8:

(1) GENERAL INFORMATION:  
(iv) CORRESPONDENCE ADDRESS:  
(2) INFORMATION FOR SEQ ID NO: 2:  
(2) INFORMATION FOR SEQ ID NO: 3:  
(2) INFORMATION FOR SEQ ID NO: 4:  
(2) INFORMATION FOR SEQ ID NO: 5:  
(2) INFORMATION FOR SEQ ID NO: 6:  
(2) INFORMATION FOR SEQ ID NO: 7:  
(2) INFORMATION FOR SEQ ID NO: 8:

PAGE: 1

SEQUENCE MISSING ITEM REPORT  
PATENT APPLICATION US/07/978,891B

DATE: 05/26/93  
TIME: 14:44:16  
S4539

MANDATORY IDENTIFIER THAT WAS NOT FOUND

PRIOR APPLICATION DATA  
APPLICATION NUMBER  
FILING DATE

PAGE: 1

SEQUENCE VERIFICATION REPORT  
PATENT APPLICATION US/07/978,891B

DATE: 05/26/93  
TIME: 14:44:16  
S4539

LINE ERROR

ORIGINAL TEXT

30 Wrong application Serial Number  
691 Entered and Calc. Seq. Length differ  
729 Entered and Calc. Seq. Length differ  
764 Entered and Calc. Seq. Length differ  
783 Entered and Calc. Seq. Length differ  
802 Entered and Calc. Seq. Length differ

(A) APPLICATION NUMBER: 07/978,891 *OK*  
(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 3  
(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 5  
(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 6  
(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 7  
(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 8

## Patent Application US/07/978,891B

## SEQUENCE LISTING

pp. 14 → 16

## (1) GENERAL INFORMATION

(i) APPLICANT: Darrell Anderson, Nabil Hanna, John Leonard, Roland Newman and Mitchell R

(ii) TITLE OF INVENTION: THERAPEUTIC APPLICATION OF CHIMERIC ANTIBODY TO HUMAN B LYMPHOCY

(iii) NUMBER OF SEQUENCES: 8

## (iv) CORRESPONDING ADDRESS:

(A) ADDRESSEE: IDEC Pharmaceuticals Corporation

(B) STREET: 11099 N. Torrey Pines Road, #160

(C) CITY: La Jolla

(D) STATE: California

(E) COUNTRY: USA

(F) ZIP: 92037

## (v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: Diskette, 3.5 inch, 1.44 Mb

(B) COMPUTER: Macintosh

(C) OPERATING SYSTEM: MS.DOS

(D) SOFTWARE: Microsoft Word 5.0

## (vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER: 07/978,891

(B) FILING DATE: 13 NOV 1992

(C) CLASSIFICATION: 424

## (vii) ATTORNEY/AGENT INFORMATION:

(A) NAME: Burgoon, Richard P. Jr.

(B) REGISTRATION NUMBER: 34,787

(C) REFERENCE/DOCKET NUMBER:

## (ix) TELECOMMUNICATION INFORMATION:

(A) TELEPHONE: (619) 458-0600

(B) TELEFAX: (619) 546-9274

## (2) INFORMATION FOR SEQ ID NO: 1:

## (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 8540 bases

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: circular

## Patent Application US/07/978,891B

53  
54 (ii) MOLECULE TYPE: DNA (genomic)  
55  
56 (iii) HYPOTHETICAL: no  
57  
58 (iv) ANTI-SENSE: no  
59  
60 (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 1:  
61  
62 GACGTCGCGG CCGCTCTAGG CCTCCAAAAA AGCCTCCTCA CTACTTCTGG AATAGCTCAG 60  
63  
64 AGGCCGAGGC GGCCTCGGCC TCTGCATAAA TAAAAAAAT TAGTCAGCCA TGCATGGGGC 120  
65  
66 GGAGAATGGG CGGAAGTGGG CGGAGTTAGG GCGGGGATGG GCGGAGTTAG GGGCGGGACT 180  
67  
68 ATGGTTGCTG ACTAATTGAG ATGCATGCTT TGCATACTTC TGCCTGCTGG GGAGCCTGGG 240  
69  
70 GACTTTCCAC ACCTGGTTGC TGACTAATTG AGATGCATGC TTTGCATACT TCTGCCTGCT 300  
71  
72 GGGGAGCCTG GGGACTTTCC ACACCCTAAC TGACACACAT TCCACAGAAT TAATTCCCCT 360  
73  
74 AGTTATTAAT AGTAATCAAT TACGGGGTCA TTAGTTCATA GCCCATATAT GGAGTTCCGC 420  
75  
76 GTTACATAAC TTACGGTAAA TGGCCCGCCT GGCTGACCGC CCAACGACCC CCGCCCATTG 480  
77  
78 ACGTCAATAA TGACGTATGT TCCCATAGTA ACGCCAATAG GGACTTTCCA TTGACGTCAA 540  
79  
80 TGGGTGGACT ATTTACGGTA AACTGCCCAC TTGGCAGTAC ATCAAGTGTA TCATATGCCA 600  
81  
82 AGTACGCCCC CTATTGACGT CAATGACGGT AAATGGCCCG CCTGGCATTG TGCCAGTAC 660  
83  
84 ATGACCTTAT GGGACTTTCC TACTTGGCAG TACATCTACG TATTAGTCAT CGCTATTACC 720  
85  
86 ATGGTGATGC GGTTTTGGCA GTACATCAAT GGGCGTGGAT AGCGGTTTGA CTCACGGGGA 780  
87  
88 TTTCCAAGTC TCCACCCCAT TGACGTCAAT GGGAGTTTGT TTTGGCACCA AAATCAACGG 840  
89  
90 GACTTTCCAA AATGTCGTAA CAACTCCGCC CCATTGACGC AAATGGGCGG TAGGCGTGTA 900  
91  
92 CGGTGGGAGG TCTATATAAG CAGAGCTGGG TACGTGAACC GTCAGATCGC CTGGAGACGC 960  
93  
94 CATCACAGAT CTCTCACCAT GAGGGTCCCC GCTCAGCTCC TGGGGCTCCT GCTGCTCTGG 1020  
95  
96 CTCCAGGTG CACGATGTGA TGGTACCAAG GTGGAAATCA AACGTACGGT GGCTGCACCA 1080  
97  
98 TCTGTCTTCA TCTTCCCGCC ATCTGATGAG CAGTTGAAAT CTGGAAGTGC CTCTGTTGTG 1140  
99  
100 TGCCTGCTGA ATAACCTCTA TCCAGAGAG GCCAAAGTAC AGTGGAAGGT GGATAACGCC 1200  
101  
102 CTCCAATCGG GTAACCTCCA GGAGAGTGTC ACAGAGCAGG ACAGCAAGGA CAGCACCTAC 1260  
103  
104 AGCCTCAGCA GCACCCTGAC GCTGAGCAAA GCAGACTACG AGAAACACAA AGTCTACGCC 1320

**Patent Application US/07/978,891B**

105							
106	TGCGAAGTCA	CCCATCAGGG	CCTGAGCTCG	CCCCTCACAA	AGAGCTTCAA	CAGGGGAGAG	1380
107							
108	TGTTGAATTC	AGATCCGTTA	ACGGTTACCA	ACTACCTAGA	CTGGATTTCGT	GACAACATGC	1440
109							
110	GGCCGTGATA	TCTACGTATG	ATCAGCCTCG	ACTGTGCCTT	CTAGTTGCCA	GCCATCTGTT	1500
111							
112	GTTTGCCCCCT	CCCCCGTGCC	TTCCTTGACC	CTGGAAGGTG	CCACTCCCAC	TGTCCTTTCC	1560
113							
114	TAATAAAATG	AGGAAATTGC	ATCGCATTGT	CTGAGTAGGT	GTCATTCTAT	TCTGGGGGGT	1620
115							
116	GGGGTGGGGC	AGGACAGCAA	GGGGGAGGAT	TGGGAAGACA	ATAGCAGGCA	TGCTGGGGAT	1680
117							
118	GCGGTGGGCT	CTATGGAACC	AGCTGGGGCT	CGACAGCTAT	GCCAAGTACG	CCCCCTATTG	1740
119							
120	ACGTCAATGA	CGGTAAATGG	CCCGCCTGGC	ATTATGCCCA	GTACATGACC	TTATGGGACT	1800
121							
122	TTCTACTTTG	GCAGTACATC	TACGTATTAG	TCATCGCTAT	TACCATGGTG	ATGCGGTTTT	1860
123							
124	GGCAGTACAT	CAATGGGCGT	GGATAGCGGT	TTGACTCACG	GGGATTTCCA	AGTCTCCACC	1920
125							
126	CCATTGACGT	CAATGGGAGT	TTGTTTTTGGC	ACCAAATCA	ACGGGACTTT	CCAAAATGTC	1980
127							
128	GTAACAACTC	CGCCCCATTG	ACGCAAATGG	GCGGTAGGCG	TGTACGGTGG	GAGGTCTATA	2040
129							
130	TAAGCAGAGC	TGGGTACGTC	CTCACATTCA	GTGATCAGCA	CTGAACACAG	ACCCGTCGAC	2100
131							
132	ATGGGTTTGA	GCCTCATCTT	GCTCTTCCTT	GTCGCTGTTG	CTACGCGTGT	CGCTAGCACC	2160
133							
134	AAGGGCCCAT	CGGTCTTTCC	CCTGGCACCC	TCCTCCAAGA	GCACCTCTGG	GGGCACAGCG	2220
135							
136	GCCCTGGGCT	GCCTGGTCAA	GGACTACTTC	CCCGAACCGG	TGACGGTGTC	GTGGAACTCA	2280
137							
138	GGCGCCCTGA	CCAGCGGCGT	GCACACCTTC	CCGGCTGTCC	TACAGTCCTC	AGGACTCTAC	2340
139							
140	TCCCTCAGCA	GCGTGGTGAC	CGTGCCCTCC	AGCAGCTTGG	GCACCCAGAC	CTACATCTGC	2400
141							
142	AACGTGAATC	ACAAGCCCAG	CAACACCAAG	GTGGACAAGA	AAGCAGAGCC	CAAATCTTGT	2460
143							
144	GACAAAATC	ACACATGCCC	ACCGTGCCCA	GCACCTGAAC	TCCTGGGGGG	ACCGTCAGTC	2520
145							
146	TTCTCTTTCC	CCCCAAAACC	CAAGGACACC	CTCATGATCT	CCCGGACCCC	TGAGGTCACA	2580
147							
148	TGCGTGGTGG	TGGACGTGAG	CCACGAAGAC	CCTGAGGTCA	AGTTCAACTG	GTACGTGGAC	2640
149							
150	GGCGTGGAGG	TGCATAATGC	CAAGACAAAG	CCGCGGGAGG	AGCAGTACAA	CAGCACGTAC	2700
151							
152	CGTGTGGTCA	GCGTCCTCAC	CGTCCTGCAC	CAGGACTGGC	TGAATGGCAA	GGAGTACAAG	2760
153							
154	TGCAAGGTCT	CCAACAAAGC	CCTCCCAGCC	CCCATCGAGA	AAACCATCTC	CAAAGCCAAA	2820
155							
156	GGGCAGCCCC	GAGAACCACA	GGTGTACACC	CTGCCCCCAT	CCCGGGATGA	GCTGACCAAG	2880

## Patent Application US/07/978,891B

157								
158	AACCAGGTCA	GCCTGACCTG	CCTGGTCAAA	GGCTTCTATC	CCAGCGACAT	CGCCGTGGAG	2940	
159								
160	TGGGAGAGCA	ATGGGCAGCC	GGAGAACAAC	TACAAGACCA	CGCCTCCCGT	GCTGGACTCC	3000	
161								
162	GACGGCTCCT	TCTTCCTCTA	CAGCAAGCTC	ACCGTGGACA	AGAGCAGGTG	GCAGCAGGGG	3060	
163								
164	AACGTCTTCT	CATGCTCCGT	GATGCATGAG	GCTCTGCACA	ACCACTACAC	GCAGAAGAGC	3120	
165								
166	CTCTCCCTGT	CTCCGGGTAA	ATGAGGATCC	GTTAACGGTT	ACCAACTACC	TAGACTGGAT	3180	
167								
168	TCGTGACAAC	ATGCGGCCGT	GATATCTACG	TATGATCAGC	CTCGACTGTG	CCTTCTAGTT	3240	
169								
170	GCCAGCCATC	TGTTGTTTGC	CCCTCCCCCG	TGCCTTCCTT	GACCCTGGAA	GGTGCCACTC	3300	
171								
172	CCACTGTCCT	TTCCTAATAA	AATGAGGAAA	TTGCATCGCA	TTGTCTGAGT	AGGTGTCATT	3360	
173								
174	CTATTCTGGG	GGGTGGGGTG	GGGCAGGACA	GCAAGGGGGA	GGATTGGGAA	GACAATAGCA	3420	
175								
176	GGCATGCTGG	GGATGCGGTG	GGCTCTATGG	AACCAGCTGG	GGCTCGACAG	CGCTGGATCT	3480	
177								
178	CCCGATCCCC	AGCTTTGCTT	CTCAATTTCT	TATTTGCATA	ATGAGAAAAA	AAGGAAAATT	3540	
179								
180	AATTTTAACA	CCAATTCAGT	AGTTGATTGA	GCAAATGCGT	TGCCAAAAAG	GATGCTTTAG	3600	
181								
182	AGACAGTGTT	CTCTGCACAG	ATAAGGACAA	ACATTATTCA	GAGGGAGTAC	CCAGAGCTGA	3660	
183								
184	GACTCCTAAG	CCAGTGAGTG	GCACAGCATT	CTAGGGAGAA	ATATGCTTGT	CATCACCAGAA	3720	
185								
186	GCCTGATTCC	GTAGAGCCAC	ACCTTGGTAA	GGGCCAATCT	GCTCACACAG	GATAGAGAGG	3780	
187								
188	GCAGGAGCCA	GGGCAGAGCA	TATAAGGTGA	GGTAGGATCA	GTTGCTCCTC	ACATTTGCTT	3840	
189								
190	CTGACATAGT	TGTGTTGGGA	GCTTGGATAG	CTTGGACAGC	TCAGGGCTGC	GATTTGCGGC	3900	
191								
192	CAAACCTTGAC	GGCAATCCTA	GCGTGAAGGC	TGGTAGGATT	TTATCCCCGC	TGCCATCATG	3960	
193								
194	GTTGACCAT	TGAACATGCAT	CGTCGCCGTG	TCCAAAATA	TGGGGATTGG	CAAGAACGGA	4020	
195								
196	GACCTACCTT	GGCCTCCGCT	CAGGAACGAG	TTCAAGTACT	TCCAAAGAAT	GACCACAACC	4080	
197								
198	TCTTCAGTGG	AAGGTAAACA	GAATCTGGTG	ATTATGGGTA	GGAAAACCTG	GTTCTCCATT	4140	
199								
200	CCTGAGAAGA	ATCGACCTTT	AAAGGACAGA	ATTAATATAG	TTCTCAGTAG	AGAACTCAAA	4200	
201								
202	GAACCACCAC	GAGGAGCTCA	TTTTCTTGCC	AAAAGTTTGG	ATGATGCCTT	AAGACTTATT	4260	
203								
204	GAACAACCGG	AATTGGCAAG	TAAAGTAGAC	ATGGTTTGGG	TAGTCGGAGG	CAGTTCTGTT	4320	
205								
206	TACCAGGAAG	CCATGAATCA	ACCAGGCCAC	CTTAGACTCT	TTGTGACAAG	GATCATGCAG	4380	
207								
208	GAATTTGAAA	GTGACACGTT	TTTCCAGAA	ATTGATTTGG	GGAAATATAA	ACTTCTCCCA	4440	

## Patent Application US/07/978,891B

209  
210 GAATACCCAG GCGTCCTCTC TGAGGTCCAG GAGGAAAAAG GCATCAAGTA TAAGTTTGAA 4500  
211  
212 GTCTACGAGA AGAAAGACTA ACAGGAAGAT GCTTTCAAGT TCTCTGCTCC CCTCCTAAAG 4560  
213  
214 CTATGCATTT TTATAAGACC ATGGGACTTT TGCTGGCTTT AGATCAGCCT CGACTGTGCC 4620  
215  
216 TTCTAGTTGC CAGCCATCTG TTGTTTGCCC CTCCCCCGTG CCTTCCTTGA CCCTGGAAGG 4680  
217  
218 TGCCACTCCC ACTGTCCTTT CCTAATAAAA TGAGGAAATT GCATCGCATT GTCTGAGTAG 4740  
219  
220 GTGTCATTCT ATTCTGGGGG GTGGGGTGGG GCAGGACAGC AAGGGGGAGG ATTGGGAAGA 4800  
221  
222 CAATAGCAGG CATGCTGGGG ATGCGGTGGG CTCTATGGAA CCAGCTGGGG CTCGAGCTAC 4860  
223  
224 TAGCTTTGCT TCTCAATTTC TTATTTGCAT AATGAGAAAA AAAGGAAAAT TAATTTTAAC 4920  
225  
226 ACCAATTCAG TAGTTGATTG AGCAAATGCG TTGCCAAAAA GGATGCTTTA GAGACAGTGT 4980  
227  
228 TCTCTGCACA GATAAGGACA AACATTATTC AGAGGGAGTA CCCAGAGCTG AGACTCCTAA 5040  
229  
230 GCCAGTGAGT GGCACAGCAT TCTAGGGAGA AATATGCTTG TCATCACCGA AGCCTGATTC 5100  
231  
232 CGTAGAGCCA CACCTTGGA AGGGCCAATC TGCTCACACA GGATAGAGAG GGCAGGAGCC 5160  
233  
234 AGGGCAGAGC ATATAAGGTG AGGTAGGATC AGTTGCTCCT CACATTTGCT TCTGACATAG 5220  
235  
236 TTGTGTTGGG AGCTTGGATC GATCCTCTAT GGTGAACAA GATGGATTGC ACGCAGGTTT 5280  
237  
238 TCCGGCCGCT TGGGTGGAGA GGCTATTCGG CTATGACTGG GCACAACAGA CAATCGGCTG 5340  
239  
240 CTCTGATGCC GCCGTGTTCC GGCTGTCAGC GCAGGGGCGC CCGGTTCTTT TTGTCAAGAC 5400  
241  
242 CGACCTGTCC GGTGCCCTGA ATGAACTGCA GGACGAGGCA GCGCGGCTAT CGTGGCTGGC 5460  
243  
244 CACGACGGGC GTTCCTTGCG CAGCTGTGCT CGACGTTGTC ACTGAAGCGG GAAGGGACTG 5520  
245  
246 GCTGCTATTG GGCGAAGTGC CGGGGCAGGA TCTCCTGTCA TCTCACCTTG CTCCTGCCGA 5580  
247  
248 GAAAGTATCC ATCATGGCTG ATGCAATGCG GCGGCTGCAT ACGCTTGATC CGGCTACCTG 5640  
249  
250 CCCATTCGAC CACCAAGCGA AACATCGCAT CGAGCGAGCA CGTACTCGGA TGGAAGCCGG 5700  
251  
252 TCTTGTCGAT CAGGATGATC TGGACGAAGA GCATCAGGGG CTCGCGCCAG CCGAACTGTT 5760  
253  
254 CGCCAGGCTC AAGGCGCGCA TGCCCGACGG CGAGGATCTC GTCGTGACCC ATGGCGATGC 5820  
255  
256 CTGCTTGCCG AATATCATGG TGGAAAATGG CCGCTTTTCT GGATTCATCG ACTGTGGCCG 5880  
257  
258 GCTGGGTGTG GCGGACCGCT ATCAGGACAT AGCGTTGGCT ACCCGTGATA TTGCTGAAGA 5940  
259  
260 GCTTGGCGGC GAATGGGCTG ACCGCTTCCT CGTGCTTTAC GGTATCGCCG CTCCCGATTC 6000



## Patent Application US/07/978,891B

261							
262	GCAGCGCATC	GCCTTCTATC	GCCTTCTTGA	CGAGTTCTTC	TGAGCGGGAC	TCTGGGGTTC	6060
263							
264	GAAATGACCG	ACCAAGCGAC	GCCCAACCTG	CCATCACGAG	ATTTCGATTC	CACCGCCGCC	6120
265							
266	TTCTATGAAA	GGTTGGGCTT	CGGAATCGTT	TTCCGGGACG	CCGGCTGGAT	GATCCTCCAG	6180
267							
268	CGCGGGGATC	TCATGCTGGA	GTTCTTCGCC	CACCCCAACT	TGTTTATTGC	AGCTTATAAT	6240
269							
270	GGTTACAAAT	AAAGCAATAG	CATCACAAAT	TTCACAAATA	AAGCATTTTT	TTCACTGCAT	6300
271							
272	TCTAGTTGTG	GTTTGTCCAA	ACTCATCAAT	CTATCTTATC	ATGTCTGGAT	CGCGGCCGCG	6360
273							
274	ATCCCGTCGA	GAGCTTGGCG	TAATCATGGT	CATAGCTGTT	TCCTGTGTGA	AATTGTTATC	6420
275							
276	CGCTCACAAT	TCCACACAAC	ATACGAGCCG	GAAGCATAAA	GTGTAAAGCC	TGGGGTGCCT	6480
277							
278	AATGAGTGAG	CTAACTCACA	TTAATTGCGT	TGCGCTCACT	GCCCGCTTTC	CAGTCGGGAA	6540
279							
280	ACCTGTCGTG	CCAGCTGCAT	TAATGAATCG	GCCAACGCGC	GGGGAGAGGC	GGTTTGC GTA	6600
281							
282	TTGGGCGCTC	TTCCGCTTCC	TCGCTCACTG	ACTCGCTGCG	CTCGGTCGTT	CGGCTGCGGC	6660
283							
284	GAGCGGTATC	AGCTCACTCA	AAGGCGGTAA	TACGGTTATC	CACAGAATCA	GGGGATAACG	6720
285							
286	CAGGAAAGAA	CATGTGAGCA	AAAGGCCAGC	AAAAGGCCAG	GAACCGTAAA	AAGGCCGCGT	6780
287							
288	TGCTGGCGTT	TTTCCATAGG	CTCCGCCCCC	CTGACGAGCA	TCACAAAAAT	CGACGCTCAA	6840
289							
290	GTCAGAGGTG	GCGAAACCCG	ACAGGACTAT	AAAGATACCA	GGCGTTTCCC	CCTGGAAGCT	6900
291							
292	CCCTCGTGCG	CTCTCCTGTT	CCGACCCTGC	CGCTTACCGG	ATACCTGTCC	GCCTTTCTCC	6960
293							
294	CTTCGGGAAG	CGTGGCGCTT	TCTCAATGCT	CACGCTGTAG	GTATCTCAGT	TCGGTGTAGG	7020
295							
296	TCGTTGCTC	CAAGCTGGGC	TGTGTGCACG	AACCCCCCGT	TCAGCCCGAC	CGCTGCGCCT	7080
297							
298	TATCCGGTAA	CTATCGTCTT	GAGTCCAACC	CGGTAAGACA	CGACTTATCG	CCACTGGCAG	7140
299							
300	CAGCCACTGG	TAACAGGATT	AGCAGAGCGA	GGTATGTAGG	CGGTGCTACA	GAGTTCTTGA	7200
301							
302	AGTGGTGGCC	TAACACGGC	TACACTAGAA	GGACAGTATT	TGGTATCTGC	GCTCTGCTGA	7260
303							
304	AGCCAGTTAC	CTTCGGAAAA	AGAGTTGGTA	GCTCTTGATC	CGGCAAACAA	ACCACCGCTG	7320
305							
306	GTAGCGGTGG	TTTTTTTTGTT	TGCAAGCAGC	AGATTACGCG	CAGAAAAAAA	GGATCTCAAG	7380
307							
308	AAGATCCTTT	GATCTTTTCT	ACGGGGTCTG	ACGCTCAGTG	GAACGAAAAC	TCACGTTAAG	7440
309							
310	GGATTTTGGT	CATGAGATTA	TCAAAAAGGA	TCTTCACCTA	GATCCTTTTA	AATTA AAAAT	7500
311							
312	GAAGTTTAA	ATCAATCTAA	AGTATATATG	AGTAAACTTG	GTCTGACAGT	TACCAATGCT	7560

## Patent Application US/07/978,891B

313  
314 TAATCAGTGA GGCACCTATC TCAGCGATCT GTCTATTTTCG TTCATCCATA GTTGCCTGAC 7620  
315  
316 TCCCCGTCGT GTAGATAACT ACGATACGGG AGGGCTTACC ATCTGGCCCC AGTGCTGCAA 7680  
317  
318 TGATACCGCG AGACCCACGC TCACCGGCTC CAGATTTATC AGCAATAAAC CAGCCAGCCG 7740  
319  
320 GAAGGGCCGA GCGCAGAAGT GGTCTTGCAA CTTTATCCGC CTCCATCCAG TCTATTAATT 7800  
321  
322 GTTGCCGGGA AGCTAGAGTA AGTAGTTCGC CAGTTAATAG TTTGCGCAAC GTTGTTGCCA 7860  
323  
324 TTGCTACAGG CATCGTGGTG TCACGCTCGT CGTTTGGTAT GGCTTCATTC AGCTCCGGTT 7920  
325  
326 CCCAACGATC AAGGCGAGTT ACATGATCCC CCATGTTGTG CAAAAAGCG GTTAGCTCCT 7980  
327  
328 TCGGTCCTCC GATCGTTGTC AGAAGTAAGT TGGCCGCAGT GTTATCACTC ATGGTTATGG 8040  
329  
330 CAGCACTGCA TAATTCTCTT ACTGTCATGC CATCCGTAAG ATGCTTTTCT GTGACTGGTG 8100  
331  
332 AGTACTCAAC CAAGTCATTC TGAGAATAGT GTATGCGGCG ACCGAGTTGC TCTTGCCCGG 8160  
333  
334 CGTCAATACG GGATAATACC GCGCCACATA GCAGAACTTT AAAAGTGCTC ATCATTGGAA 8220  
335  
336 AACGTTCTTC GGGGCGAAAA CTCTCAAGGA TCTTACCGCT GTTGAGATCC AGTTCGATGT 8280  
337  
338 AACCCACTCG TGCACCCAAC TGATCTTCAG CATCTTTTAC TTTACCAGC GTTTCTGGGT 8340  
339  
340 GAGCAAAAAAC AGGAAGGCAA AATGCCGCAA AAAAGGGAAT AAGGGCGACA CGGAAATGTT 8400  
341  
342 GAATACTCAT ACTCTTCCTT TTTCAATATT ATTGAAGCAT TTATCAGGGT TATTGTCTCA 8460  
343  
344 TGAGCGGATA CATATTTGAA TGTATTTAGA AAAATAAACA AATAGGGGTT CCGCGCACAT 8520  
345  
346 TTCCCCGAAA AGTGCCACCT 8540  
347  
348

349 (3) INFORMATION FOR SEQ ID NO: 2:

350

351 (i) SEQUENCE CHARACTERISTICS:

352

353 (A) LENGTH: 9209 bases

354 (B) TYPE: nucleic acid

355 (C) STRANDEDNESS: single

356 (D) TOPOLOGY: circular

357

358 (ii) MOLECULE TYPE: DNA (genomic)

359

360 (iii) HYPOTHETICAL: no

361

362 (iv) ANTI-SENSE: no

363

364 (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

## Patent Application US/07/978,891B

365  
366  
367 GACGTCGCGG CCGCTCTAGG CCTCCAAAA AGCCTCCTCA CTACTTCTGG AATAGCTCAG 60  
368  
369 AGGCCGAGGC GGCCTCGGCC TCTGCATAAA TAAAAAAAT TAGTCAGCCA TGCATGGGGC 120  
370  
371 GGAGAATGGG CGGAAC TGGG CGGAGTTAGG GGC GGGGATGG GCGGAGTTAG GGGCGGGACT 180  
372  
373 ATGGTTGCTG ACTAATTGAG ATGCATGCTT TGCATACTTC TGCCTGCTGG GGAGCCTGGG 240  
374  
375 GACTTTCCAC ACCTGGTTGC TGACTAATTG AGATGCATGC TTTGCATACT TCTGCCTGCT 300  
376  
377 GGGGAGCCTG GGGACTTTCC ACACCCTAAC TGACACACAT TCCACAGAAT TAATTCCCCT 360  
378  
379 AGTTATTAAT AGTAATCAAT TACGGGGTCA TTAGTTCATA GCCCATATAT GGAGTTCCGC 420  
380  
381 GTTACATAAC TTACGGTAAA TGGCCCGCCT GGCTGACCGC CCAACGACCC CCGCCCATTG 480  
382  
383 ACGTCAATAA TGACGTATGT TCCCATAGTA ACGCCAATAG GGACTTTCCA TTGACGTCAA 540  
384  
385 TGGGTGGACT ATTTACGGTA AACTGCCCAC TTGGCAGTAC ATCAAGTGTA TCATATGCCA 600  
386  
387 AGTACGCCCC CTATTGACGT CAATGACGGT AAATGGCCCG CCTGGCATTG TGCCAGTAC 660  
388  
389 ATGACCTTAT GGGACTTTCC TACTTGGCAG TACATCTACG TATTAGTCAT CGCTATTACC 720  
390  
391 ATGGTGATGC GGTTTTGGCA GTACATCAAT GGGCGTGGAT AGCGGTTTGA CTCACGGGGA 780  
392  
393 TTTCCAAGTC TCCACCCCAT TGACGTCAAT GGGAGTTTGT TTTGGCACCA AAATCAACGG 840  
394  
395 GACTTTCCAA AATGTCGTAA CAACTCCGCC CCATTGACGC AAATGGGCGG TAGGCGTGTA 900  
396  
397 CGGTGGGAGG TCTATATAAG CAGAGCTGGG TACGTGAACC GTCAGATCGC CTGGAGACGC 960  
398  
399 CATCACAGAT CTCTCACTAT GGATTTTCAG GTGCAGATTA TCAGCTTCCT GCTAATCAGT 1020  
400  
401 GCTTCAGTCA TAATGTCCAG AGGACAAATT GTTCTCTCCC AGTCTCCAGC AATCCTGTCT 1080  
402  
403 GCATCTCCAG GGGAGAAGGT CACAATGACT TGCAGGGCCA GCTCAAGTGT AAGTTACATC 1140  
404  
405 CACTGGTTCC AGCAGAAGCC AGGATCCTCC CCCAAACCCT GGATTTATGC CACATCCAAC 1200  
406  
407 CTGGCTTCTG GAGTCCCTGT TCGCTTCAGT GGCAGTGGGT CTGGGACTTC TTACTCTCTC 1260  
408  
409 ACAATCAGCA GAGTGGAGGC TGAAGATGCT GCCACTTATT ACTGCCAGCA GTGGACTAGT 1320  
410  
411 AACCACCCCA CGTTCGGAGG GGGGACCAAG CTGGAAATCA AACGTACGGT GGCTGCACCA 1380  
412  
413 TCTGTCTTCA TCTTCCCGCC ATCTGATGAG CAGTTGAAAT CTGGAAGTGC CTCTGTTGTG 1440  
414  
415 TGCCTGCTGA ATAAC TTCTA TCCAGAGAG GCCAAAGTAC AGTGGAAGGT GGATAACGCC 1500  
416

## Patent Application US/07/978,891B

417	CTCCAATCGG	GTAAC TCCCA	GGAGAGTGTC	ACAGAGCAGG	ACAGCAAGGA	CAGCACCTAC	1560
418							
419	AGCCTCAGCA	GCACCCTGAC	GCTGAGCAAA	GCAGACTACG	AGAAACACAA	AGTCTACGCC	1620
420							
421	TGCGAAGTCA	CCCATCAGGG	CCTGAGCTCG	CCCGTCACAA	AGAGCTTCAA	CAGGGGAGAG	1680
422							
423	TGTTGAATTC	AGATCCGTTA	ACGGTTACCA	ACTACCTAGA	CTGGATTTCGT	GACAACATGC	1740
424							
425	GGCCGTGATA	TCTACGTATG	ATCAGCCTCG	ACTGTGCCTT	CTAGTTGCCA	GCCATCTGTT	1800
426							
427	GTTTGCCCCCT	CCCCCGTGCC	TTCCTTGACC	CTGGAAGGTG	CCACTCCCAC	TGTCCTTTCC	1860
428							
429	TAATAAAATG	AGGAAATTGC	ATCGCATTGT	CTGAGTAGGT	GTCATTCTAT	TCTGGGGGGT	1920
430							
431	GGGGTGGGGC	AGGACAGCAA	GGGGGAGGAT	TGGGAAGACA	ATAGCAGGCA	TGCTGGGGAT	1980
432							
433	GCGGTGGGCT	CTATGGAACC	AGCTGGGGCT	CGACAGCTAT	GCCAAGTACG	CCCCCTATTG	2040
434							
435	ACGTCAATGA	CGGTAAATGG	CCCGCCTGGC	ATTATGCCCA	GTACATGACC	TTATGGGACT	2100
436							
437	TTCCTACTTG	GCAGTACATC	TACGTATTAG	TCATCGCTAT	TACCATGGTG	ATGCGGTTTT	2160
438							
439	GGCAGTACAT	CAATGGGCGT	GGATAGCGGT	TTGACTCACG	GGGATTTCCA	AGTCTCCACC	2220
440							
441	CCATTGACGT	CAATGGGAGT	TTGTTTTGGC	ACCAAAATCA	ACGGGACTTT	CCAAAATGTC	2280
442							
443	GTAACAACTC	CGCCCCATTG	ACGCAAATGG	GCGGTAGGCG	TGTACGGTGG	GAGGTCTATA	2340
444							
445	TAAGCAGAGC	TGGGTACGTC	CTCACATTCA	GTGATCAGCA	CTGAACACAG	ACCCGTCGAC	2400
446							
447	ATGGGTGGA	GCCTCATCTT	GCTCTTCCTT	GTCGCTGTTG	CTACGCGTGT	CCTGTCCCAG	2460
448							
449	GTACAACTGC	AGCAGCCTGG	GGCTGAGCTG	GTGAAGCCTG	GGGCCTCAGT	GAAGATGTCC	2520
450							
451	TGCAAGGCTT	CTGGCTACAC	ATTTACCAGT	TACAATATGC	ACTGGGTAAA	ACAGACACCT	2580
452							
453	GGTCGGGGCC	TGGAATGGAT	TGGAGCTATT	TATCCCGGAA	ATGGTGATAC	TTCCTACAAT	2640
454							
455	CAGAAGTTCA	AAGGCAAGGC	CACATTGACT	GCAGACAAAT	CCTCCAGCAC	AGCCTACATG	2700
456							
457	CAGCTCAGCA	GCCTGACATC	TGAGGACTCT	GCGGTCTATT	ACTGTGCAAG	ATCGACTTAC	2760
458							
459	TACGGCGGTG	ACTGGTACTT	CAATGTCTGG	GGCGCAGGGA	CCACGGTCAC	CGTCTCTGCA	2820
460							
461	GCTAGCACCA	AGGGCCCATC	GGTCTTCCCC	CTGGCACCCCT	CCTCCAAGAG	CACCTCTGGG	2880
462							
463	GGCACAGCGG	CCCTGGGCTG	CCTGGTCAAG	GACTACTTCC	CCGAACCGGT	GACGGTGTCTG	2940
464							
465	TGGAACCTCAG	GCGCCCTGAC	CAGCGGCGTG	CACACCTTCC	CGGCTGTCCT	ACAGTCCTCA	3000
466							
467	GGACTCTACT	CCCTCAGCAG	CGTGGTGACC	GTGCCCTCCA	GCAGCTTGGG	CACCCAGACC	3060
468							

## Patent Application US/07/978,891B

469	TACATCTGCA	ACGTGAATCA	CAAGCCCAGC	AACACCAAGG	TGGACAAGAA	AGCAGAGCCC	3120
470							
471	AAATCTTGTG	ACAAAACCTCA	CACATGCCCA	CCGTGCCCAG	CACCTGAACT	CCTGGGGGGA	3180
472							
473	CCGTCAGTCT	TCCTCTTCCC	CCCAAAACCC	AAGGACACCC	TCATGATCTC	CCGGACCCCT	3240
474							
475	GAGGTCACAT	GCGTGGTGGT	GGACGTGAGC	CACGAAGACC	CTGAGGTCAA	GTTCAACTGG	3300
476							
477	TACGTGGACG	GCGTGGAGGT	GCATAATGCC	AAGACAAAGC	CGCGGGAGGA	GCAGTACAAC	3360
478							
479	AGCACGTACC	GTGTGGTCAG	CGTCCTCACC	GTCCTGCACC	AGGACTGGCT	GAATGGCAAG	3420
480							
481	GAGTACAAGT	GCAAGGTCTC	CAACAAAGCC	CTCCCAGCCC	CCATCGAGAA	AACCATCTCC	3480
482							
483	AAAGCCAAAG	GGCAGCCCCG	AGAACCACAG	GTGTACACCC	TGCCCCCATC	CCGGGATGAG	3540
484							
485	CTGACCAAGA	ACCAGGTCAG	CCTGACCTGC	CTGGTCAAAG	GCTTCTATCC	CAGCGACATC	3600
486							
487	GCCGTGGAGT	GGGAGAGCAA	TGGGCAGCCG	GAGAACAAC	ACAAGACCAC	GCCTCCCGTG	3660
488							
489	CTGGACTCCG	ACGGCTCCTT	CTTCCTCTAC	AGCAAGCTCA	CCGTGGACAA	GAGCAGGTGG	3720
490							
491	CAGCAGGGGA	ACGTCTTCTC	ATGCTCCGTG	ATGCATGAGG	CTCTGCACAA	CCACTACACG	3780
492							
493	CAGAAGAGCC	TCTCCCTGTC	TCCGGGTAAA	TGAGGATCCG	TTAACGGTTA	CCAACTACCT	3840
494							
495	AGACTGGATT	CGTGACAACA	TGCGGCCGTG	ATATCTACGT	ATGATCAGCC	TCGACTGTGC	3900
496							
497	CTTCTAGTTG	CCAGCCATCT	GTTGTTTGCC	CCTCCCCCGT	GCCTTCCTTG	ACCCTGGAAG	3960
498							
499	GTGCCACTCC	CACTGTCCTT	TCCTAATAAA	ATGAGGAAAT	TGCATCGCAT	TGTCTGAGTA	4020
500							
501	GGTGTCATT	TATTCTGGGG	GGTGGGGTGG	GGCAGGACAG	CAAGGGGGAG	GATTGGGAAG	4080
502							
503	ACAATAGCAG	GCATGCTGGG	GATGCGGTGG	GCTCTATGGA	ACCAGCTGGG	GCTCGACAGC	4140
504							
505	GCTGGATCTC	CCGATCCCCA	GCTTTGCTTC	TCAATTTCTT	ATTTGCATAA	TGAGAAAAAA	4200
506							
507	AGGAAAATTA	ATTTTAACAC	CAATTCAGTA	GTTGATTGAG	CAAATGCGTT	GCCAAAAAGG	4260
508							
509	ATGCTTTAGA	GACAGTGTTT	TCTGCACAGA	TAAGGACAAA	CATTATTCAG	AGGGAGTACC	4320
510							
511	CAGAGCTGAG	ACTCCTAAGC	CAGTGAGTGG	CACAGCATT	TAGGGAGAAA	TATGCTTGTC	4380
512							
513	ATCACCGAAG	CCTGATTCCG	TAGAGCCACA	CCTTGGTAA	GGCCAATCTG	CTCACACAGG	4440
514							
515	ATAGAGAGGG	CAGGAGCCAG	GGCAGAGCAT	ATAAGGTGAG	GTAGGATCAG	TTGCTCCTCA	4500
516							
517	CATTTGCTTC	TGACATAGTT	GTGTTGGGAG	CTTGATAGC	TTGGACAGCT	CAGGGCTGCG	4560
518							
519	ATTCGCGCC	AAACTTGACG	GCAATCCTAG	CGTGAAGGCT	GGTAGGATTT	TATCCCCGCT	4620
520							

## Patent Application US/07/978,891B

521	GCCATCATGG	TTCGACCATT	GAAGTGCATC	GTCGCCGTGT	CCCAAAATAT	GGGGATTGGC	4680
522							
523	AAGAACGGAG	ACCTACCCTG	GCCTCCGCTC	AGGAACGAGT	TCAAGTACTT	CCAAAGAATG	4740
524							
525	ACCACAACCT	CTTCAGTGGG	AGGTAAACAG	AATCTGGTGA	TTATGGGTAG	GAAAACCTGG	4800
526							
527	TTCTCCATT	CTGAGAAGAA	TCGACCTTTA	AAGGACAGAA	TTAATATAGT	TCTCAGTAGA	4860
528							
529	GAAGTCAAAG	AACCACCACG	AGGAGCTCAT	TTTCTTGCCA	AAAGTTTGGA	TGATGCCTTA	4920
530							
531	AGACTTATTG	AACAACCGGA	ATTGGCAAGT	AAAGTAGACA	TGGTTTGGAT	AGTCGGAGGC	4980
532							
533	AGTTCTGTTT	ACCAGGAAGC	CATGAATCAA	CCAGGCCACC	TTAGACTCTT	TGTGACAAGG	5040
534							
535	ATCATGCAGG	AATTTGAAAG	TGACACGTTT	TTCCCAGAAA	TTGATTTGGG	GAAATATAAA	5100
536							
537	CTTCTCCCAG	AATACCCAGG	CGTCTCTCT	GAGGTCCAGG	AGGAAAAAGG	CATCAAGTAT	5160
538							
539	AAGTTTGAAG	TCTACGAGAA	GAAAGACTAA	CAGGAAGATG	CTTTCAAGTT	CTCTGCTCCC	5220
540							
541	CTCCTAAAGC	TATGCATTTT	TATAAGACCA	TGGGACTTTT	GCTGGCTTTA	GATCAGCCTC	5280
542							
543	GACTGTGCCT	TCTAGTTGCC	AGCCATCTGT	TGTTTGCCCC	TCCCCCGTGC	CTTCCTTGAC	5340
544							
545	CCTGGAAGGT	GCCACTCCCA	CTGTCCTTTC	CTAATAAAAT	GAGGAAATTG	CATCGCATTG	5400
546							
547	TCTGAGTAGG	TGTCATTCTA	TTCTGGGGGG	TGGGGTGGGG	CAGGACAGCA	AGGGGGAGGA	5460
548							
549	TTGGGAAGAC	AATAGCAGGC	ATGCTGGGGA	TGCGGTGGGC	TCTATGGAAC	CAGCTGGGGC	5520
550							
551	TCGAGCTACT	AGCTTTGCTT	CTCAATTTCT	TATTTGCATA	ATGAGAAAAA	AAGGAAAATT	5580
552							
553	AATTTTAACA	CCAATTCAGT	AGTTGATTGA	GCAAATGCGT	TGCCAAAAAG	GATGCTTTAG	5640
554							
555	AGACAGTGTT	CTCTGCACAG	ATAAGGACAA	ACATTATTCA	GAGGGAGTAC	CCAGAGCTGA	5700
556							
557	GACTCCTAAG	CCAGTGAGTG	GCACAGCATT	CTAGGGAGAA	ATATGCTTGT	CATCACCGAA	5760
558							
559	GCCTGATTCC	GTAGAGCCAC	ACCTTGGTAA	GGGCCAATCT	GCTCACACAG	GATAGAGAGG	5820
560							
561	GCAGGAGCCA	GGGCAGAGCA	TATAAGGTGA	GGTAGGATCA	GTTGCTCCTC	ACATTTGCTT	5880
562							
563	CTGACATAGT	TGTGTTGGGA	GCTTGGATCG	ATCCTCTATG	GTTGAACAAG	ATGGATTGCA	5940
564							
565	CGCAGGTTCT	CCGGCCGCTT	GGGTGGAGAG	GCTATTCGGC	TATGACTGGG	CACAACAGAC	6000
566							
567	AATCGGCTGC	TCTGATGCCG	CCGTGTTCCG	GCTGTCAGCG	CAGGGGCGCC	CGGTTCTTTT	6060
568							
569	TGTCAGGACC	GACCTGTCCG	GTGCCCTGAA	TGAAGTGCAG	GACGAGGCAG	CGCGGCTATC	6120
570							
571	GTGGCTGGCC	ACGACGGGCG	TTCCTTGCGC	AGCTGTGCTC	GACGTTGTCA	CTGAAGCGGG	6180
572							

## Patent Application US/07/978,891B

573	AAGGGACTGG	CTGCTATTGG	GCGAAGTGCC	GGGGCAGGAT	CTCCTGTCAT	CTCACCTTGC	6240
574							
575	TCCTGCCGAG	AAAGTATCCA	TCATGGCTGA	TGCAATGCGG	CGGCTGCATA	CGCTTGATCC	6300
576							
577	GGCTACCTGC	CCATTGACC	ACCAAGCGAA	ACATCGCATC	GAGCGAGCAC	GTACTCGGAT	6360
578							
579	GGAAGCCGGT	CTTGTGATC	AGGATGATCT	GGACGAAGAG	CATCAGGGGC	TCGCGCCAGC	6420
580							
581	CGAACTGTTC	GCCAGGCTCA	AGGCGCGCAT	GCCCCGCGGC	GAGGATCTCG	TCGTGACCCA	6480
582							
583	TGGCGATGCC	TGCTTGCCGA	ATATCATGGT	GGAAAATGGC	CGCTTTTCTG	GATTCATCGA	6540
584							
585	CTGTGGCCGG	CTGGGTGTGG	CGGACCGCTA	TCAGGACATA	GCGTTGGCTA	CCCGTGATAT	6600
586							
587	TGCTGAAGAG	CTTGGCGGCG	AATGGGCTGA	CCGCTTCCTC	GTGCTTTACG	GTATCGCCGC	6660
588							
589	TCCCGATTTC	CAGCGCATCG	CCTTCTATCG	CCTTCTTGAC	GAGTTCTTCT	GAGCGGGACT	6720
590							
591	CTGGGGTTCG	AAATGACCGA	CCAAGCGACG	CCCAACCTGC	CATCACGAGA	TTTCGATTCC	6780
592							
593	ACCGCCGCCT	TCTATGAAAG	GTTGGGCTTC	GGAATCGTTT	TCCGGGACGC	CGGCTGGATG	6840
594							
595	ATCCTCCAGC	GCGGGGATCT	CATGCTGGAG	TTCTTCGCCC	ACCCCAACTT	GTTTATTGCA	6900
596							
597	GCTTATAATG	GTTACAAATA	AAGCAATAGC	ATCACAAATT	TCACAAATAA	AGCATTTTTT	6960
598							
599	TCACTGCATT	CTAGTTGTGG	TTTGTCCAAA	CTCATCAATC	TATCTTATCA	TGTCTGGATC	7020
600							
601	GCGGCCGCGA	TCCCGTCGAG	AGCTTGGCGT	AATCATGGTC	ATAGCTGTTT	CCTGTGTGAA	7080
602							
603	ATTGTTATCC	GCTCACAATT	CCACACAACA	TACGAGCCGG	AAGCATAAAG	TGTAAAGCCT	7140
604							
605	GGGGTGCCTA	ATGAGTGAGC	TAACTCACAT	TAATTGCGTT	GCGCTCACTG	CCCGCTTTCC	7200
606							
607	AGTCGGGAAA	CCTGTCGTGC	CAGCTGCATT	AATGAATCGG	CCAACGCGCG	GGGAGAGGCG	7260
608							
609	GTTTGCGTAT	TGGGCGCTCT	TCCGCTTCCT	CGCTCACTGA	CTCGCTGCGC	TCGGTCGTTC	7320
610							
611	GGCTGCGGCG	AGCGGTATCA	GCTCACTCAA	AGGCGGTAAT	ACGGTTATCC	ACAGAATCAG	7380
612							
613	GGGATAACGC	AGGAAAGAAC	ATGTGAGCAA	AAGGCCAGCA	AAAGGCCAGG	AACCGTAAAA	7440
614							
615	AGGCCGCGTT	GCTGGCGTTT	TTCCATAGGC	TCCGCCCCCC	TGACGAGCAT	CACAAAAATC	7500
616							
617	GACGCTCAAG	TCAGAGGTGG	CGAAACCCGA	CAGGACTATA	AAGATACCAG	GCGTTTCCCC	7560
618							
619	CTGGAAGCTC	CCTCGTGCGC	TCTCCTGTTT	CGACCCTGCC	GCTTACCGGA	TACCTGTCCG	7620
620							
621	CCTTTCTCCC	TTCGGGAAGC	GTGGCGCTTT	CTCAATGCTC	ACGCTGTAGG	TATCTCAGTT	7680
622							
623	CGGTGTAGGT	CGTTCGCTCC	AAGCTGGGCT	GTGTGCACGA	ACCCCCCGTT	CAGCCCGACC	7740
624							

## Patent Application US/07/978,891B

```
625 GCTGCGCCTT ATCCGGTAAC TATCGTCTTG AGTCCAACCC GGTAAGACAC GACTTATCGC 7800
626
627 CACTGGCAGC AGCCACTGGT AACAGGATTA GCAGAGCGAG GTATGTAGGC GGTGCTACAG 7860
628
629 AGTTCTTGAA GTGGTGGCCT AACTACGGCT AACTAGAAG GACAGTATTT GGTATCTGCG 7920
630
631 CTCTGCTGAA GCCAGTTACC TTCGGAAAAA GAGTTGGTAG CTCTTGATCC GGCAAAACAA 7980
632
633 CCACCGCTGG TAGCGGTGGT TTTTTTGTTC GCAAGCAGCA GATTACGCGC AGAAAAAAG 8040
634
635 GATCTCAAGA AGATCCTTTG ATCTTTTCTA CGGGGTCTGA CGCTCAGTGG AACGAAACT 8100
636
637 CACGTTAAGG GATTTTGGTC ATGAGATTAT CAAAAGGAT CTTACCTAG ATCCTTTTAA 8160
638
639 ATTAAAAATG AAGTTTTAAA TCAATCTAAA GTATATATGA GTAAACTTGG TCTGACAGTT 8220
640
641 ACCAATGCTT AATCAGTGAG GCACCTATCT CAGCGATCTG TCTATTTTCT TCATCCATAG 8280
642
643 TTGCCTGACT CCCCCTCGTG TAGATAACTA CGATACGGGA GGGCTTACCA TCTGGCCCCA 8340
644
645 GTGCTGCAAT GATACCGCGA GACCCACGCT CACCGGCTCC AGATTTATCA GCAATAAACC 8400
646
647 AGCCAGCCGG AAGGGCCGAG CGCAGAAGTG GTCCTGCAAC TTTATCCGCC TCCATCCAGT 8460
648
649 CTATTAATTG TTGCCGGGAA GCTAGAGTAA GTAGTTCGCC AGTTAATAGT TTGCGCAACG 8520
650
651 TTGTTGCCAT TGCTACAGGC ATCGTGGTGT CACGCTCGTC GTTTGGTATG GCTTCATTCA 8580
652
653 GCTCCGGTTC CCAACGATCA AGGCGAGTTA CATGATCCCC CATGTTGTGC AAAAAAGCGG 8640
654
655 TTAGCTCCTT CGGTCTCCG ATCGTTGTCA GAAGTAAGTT GGCCGCAGTG TTATCACTCA 8700
656
657 TGGTTATGGC AGCACTGCAT AATTCTCTTA CTGTCATGCC ATCCGTAAGA TGCTTTTCTG 8760
658
659 TGACTGGTGA GTACTCAACC AAGTCATTCT GAGAATAGTG TATGCGGCGA CCGAGTTGCT 8820
660
661 CTTGCCCCGC GTCAATACGG GATAATACCG CGCCACATAG CAGAACTTTA AAAGTGCTCA 8880
662
663 TCATTGGAAA ACGTTCTTCG GGGCGAAAAA TCTCAAGGAT CTTACCGCTG TTGAGATCCA 8940
664
665 GTTCGATGTA ACCCACTCGT GCACCCAACT GATCTTCAGC ATCTTTTACT TTCACCAGCG 9000
666
667 TTTCTGGGTG AGCAAAAACA GGAAGGCAAA ATGCCGCAAA AAAGGGAATA AGGGCGACAC 9060
668
669 GGAAATGTTG AATACTCATA CTCTTCCTTT TTCAATATTA TTGAAGCATT TATCAGGGTT 9120
670
671 ATTGTCTCAT GAGCGGATAC ATATTTGAAT GTATTTAGAA AAATAAACAA ATAGGGGTTC 9180
672
673 CGCGCACATT TCCCCGAAAA GTGCCACCT 9209
674
675
676 (4) INFORMATION FOR SEQ ID NO: 3:
```



## Patent Application US/07/978,891B

677  
678 (i)SEQUENCE CHARACTERISTICS:  
679  
680 (A)LENGTH: 47 bases  
681 (B)TYPE: nucleic acid  
682 (C)STRANDEDNESS: single  
683 (D)TOPOLOGY: linear  
684  
685 (ii)MOLECULE TYPE: DNA (genomic)  
686  
687 (iii)HYPOTHETICAL: no  
688  
689 (iv)ANTI-SENSE: no  
690  
691 (ix)SEQUENCE DESCRIPTION: SEQ ID NO: 3:  
692  
693 ATC ACA GAT CTC TCA CCA TGG ATT TTC AGG TBC AGA TTA TCA GCT45  
694 TC47  
695 (5)INFORMATION FOR SEQ ID NO: 4:  
696 *space*  
697 (i)SEQUENCE CHARACTERISTICS:  
698  
699 (A)LENGTH: 30 bases  
700 (B)TYPE: nucleic acid  
701 (C)STRANDEDNESS: single  
702 (D)TOPOLOGY: linear  
703  
704 (ii)MOLECULE TYPE: DNA (genomic)  
705  
706 (iii)HYPOTHETICAL: no  
707  
708 (iv)ANTI-SENSE: yes  
709  
710 (ix)SEQUENCE DESCRIPTION: SEQ ID NO: 4:  
711  
712 TGC AGC ATC CGT ACG TTT GAT TTC CAG CTT 30  
713  
714 (6)INFORMATION FOR SEQ ID NO: 5:  
715  
716 (i)SEQUENCE CHARACTERISTICS:  
717  
718 (A)LENGTH: 384 bases  
719 (B)TYPE: nucleic acid  
720 (C)STRANDEDNESS: single  
721 (D)TOPOLOGY: linear  
722  
723 (ii)MOLECULE TYPE: DNA (genomic)  
724  
725 (iii)HYPOTHETICAL: no  
726  
727 (iv)ANTI-SENSE: no  
728

*space before  
the nucleic  
count number*

## Patent Application US/07/978,891B

729 (ix)SEQUENCE DESCRIPTION: SEQ ID NO: 5:

730  
731  
732 ATG GAT TTT CAG GTG CAG ATT ATC AGC TTC CTG CTA ATC AGT GCT TCA GTC 51  
733  
734 ATA ATG TCC AGA GGG CAA ATT GTT CTC TCC CAG TCT CCA GCA ATC CTG TCT102  
735  
736 GCA TCT CCA GGG GAG AAG GTC ACA ATG ACT TGC AGG GCC AGC TCA AGT GAT153  
737  
738 AGT TAC ATC CAC TGG TTC CAG CAG AAG CCA GGA TCC TCC CCC AAA CCC TGG204  
739  
740 ATT TAT GCC ACA TCC AAC CTG GCT TCT GGA GTC CCT GTT CGC TTC AGT GGC255  
741  
742 AGT GGG TCT GGG ACT TCT TAC TCT CTC ACA ATC AGC AGA GTG GAG GCT GAA306  
743  
744 GAT GCT GCC ACT TAT TAC TGC CAG CAG TGG ACT AGT AAC CCA CCC ACG TTC357  
745  
746 GGA GGG GGG ACC AAG CTG GAA ATC AAA384  
747  
748

749 (7)INFORMATION FOR SEQ ID NO: 6:

750

751 (i)SEQUENCE CHARACTERISTICS:

752

753 (A)LENGTH: 27 bases

754 (B)TYPE: nucleic acid

755 (C)STRANDEDNESS: single

756 (D)TOPOLOGY: linear

757

758 (ii)MOLECULE TYPE: DNA (genomic)

759

760 (iii)HYPOTHETICAL: no

761

762 (iv)ANTI-SENSE: no

763

764 (ix)SEQUENCE DESCRIPTION: SEQ ID NO: 6:

765

766 GCG GCT CCC ACG CGT GTC CTG TCC CAG27  
767

768 (8)INFORMATION FOR SEQ ID NO: 7:

769

770 (i)SEQUENCE CHARACTERISTICS:

771

772 (A)LENGTH: 29 bases

773 (B)TYPE: nucleic acid

774 (C)STRANDEDNESS: single

775 (D)TOPOLOGY: linear

776

777 (ii)MOLECULE TYPE: DNA (genomic)

778

779 (iii)HYPOTHETICAL: no

780

space

## Patent Application US/07/978,891B

781 (iv)ANTI-SENSE: yes  
782  
783 (ix)SEQUENCE DESCRIPTION: SEQ ID NO: 7:  
784  
785 GGS TGT TGT GCT AGC TGM RGA GAC RGT GA29  
786  
787 (9)INFORMATION FOR SEQ ID NO: 8: *↑*  
788 *space*  
789 (i)SEQUENCE CHARACTERISTICS:  
790  
791 (A)LENGTH: 420 bases  
792 (B)TYPE: nucleic acid  
793 (C)STRANDEDNESS: single  
794 (D)TOPOLOGY: linear  
795  
796 (ii)MOLECULE TYPE: DNA (genomic)  
797  
798 (iii)HYPOTHETICAL: no  
799  
800 (iv)ANTI-SENSE: no  
801  
802 (ix)SEQUENCE DESCRIPTION: SEQ ID NO: 8:  
803  
804 ATG GGT TGG AGC CTC ATC TTG CTC TTC CTT GTC GCT GTT GCT ACG CGT GTC 51  
805  
806 CTG TCC CAG GTA CAA CTG CAG CAG CCT GGG GCT GAG CTG GTG AAG CCT GGG102  
807  
808 GCC TCA GTG AAG ATG TCC TGC AAG GCT TCT GGC TAC ACA TTT ACC AGT TAC153  
809  
810 AAT ATG CAC TGG GTA AAA CAG ACA CCT GGT CGG GGC CTG GAA TGG ATT GGA 204  
811  
812 GCT ATT TAT CCC GGA AAT GGT GAT ACT TCC TAC AAT CAG AAG TTC AAA GGC255  
813  
814 AAG GCC ACA TTG ACT GCA GAC AAA TCC TCC AGC ACA GCC TAC ATG CAG CTC306  
815  
816 AGC AGC CTG ACA TCT GAG GAC TCT GCG GTC TAT TAC TGT GCA AGA TCG ACT357  
817  
818 TAC TAC GGC GGT GAC TGG TAC TTC AAT GTC TGG GGC GCA GGG ACC ACG GTC408  
819 ACC GTC TCT GCA 420  
820